CLAIMS

What is claimed is:

1. An apparatus for a pivot assembly, comprising:

a bearing assembly having at least one ball bearing disposed at each end of a shaft; and

a seal member, positioned to cover an outside end face of one of the at least one ball bearing, and welded to one of an outer circumference of the shaft and an inner circumference of a sleeve mated to the outer circumference of the ball bearing, wherein

a pre-load pressure is applied to one of an outer ring and an inner ring of the at least one ball bearing.

2. The apparatus according to claim 1, further comprising:

a means for supporting the bearing assembly;

a means for imparting pressure to the seal member, so that the seal member causes the pre-load pressure; and

a means for welding the seal member.

3. A method of manufacturing a pivot assembly, comprising the steps of:

mating a ball bearing at each end of a shaft;

disposing a sleeve on an inner ring, between an outer circumference of the ball bearing and one end of the shaft;

fixing a seal member to cover an outer end face of the ball bearing;

imparting a pre-load pressure to the inner ring by pressure on the seal member; and

fixing the seal member to an outer circumference of the shaft.

4. The method according to claim 3, further comprising the steps of:

forming a sharp edge on an edge part of the seal member;

causing the sharp edge to stick closely at a point to one of the outer circumference of the shaft and the inner circumference of the sleeve; and

fixing the sharp edge at the point.

5. The method according to claim 3, further comprising the step of:

forming the seal member by press blanking; and

fixing by a welding means an edge part of the surface of the seal member that faces the press blanking to one of an outer circumference of the shaft and an inner circumference of the sleeve.

6. A method of manufacturing a pivot assembly, comprising the steps of:

mating a ball bearing at each end of a shaft;

disposing a spacer between an outer ring of the ball bearing and one end of the shaft;

fixing a seal member to cover an outer end face of the ball bearing;

imparting a pre-load pressure to the inner ring by pressure on the seal member; and

fixing the seal member to an outer circumference of the shaft.

7. The method according to claim 6, further comprising the steps of:

forming a sharp edge on an edge part of the seal member;

causing the sharp edge to stick closely at a point to one of the outer circumference of the shaft and the inner circumference of the sleeve; and

fixing the sharp edge at the point.

8. The method according to claim 6, further comprising the step of:

forming the seal member by press blanking; and

fixing by a welding means an edge part of the surface of the seal member that faces the press blanking to one of an outer circumference of the shaft and an inner circumference of the sleeve.